

Patent claims

1. A manual grinding tool comprising a rotating grinding head (7), characterized by a guide device (8) which is connected to the tool and can be placed against a workpiece (19) in a sliding and/or rolling manner and with respect to which the grinding head (7) assumes a fixed position and by means of which the tool can be pressed against the workpiece (19) in at least one direction in a stable manner without tilting.
2. The grinding tool as claimed in claim 1, characterized in that the guide device (8) can be pressed at at least three bearing points against the workpiece (19) in two directions in a stable manner without tilting.
3. The grinding tool as claimed in claim 1 or 2, characterized in that the guide device (8) has a bearing surface (15) which can be adapted to a surface of the workpiece (19).
4. The grinding tool as claimed in claim 3, characterized in that the surface of the workpiece (19) adjoins an edge (20) of the workpiece (19), and the grinding head (7) is provided for machining the edge (20) or/and a marginal surface (14) of the workpiece (19a) adjoining the workpiece edge.
5. The grinding tool as claimed in claim 4, characterized in that the guide device (8b) comprises a stop element (23) for bearing against the marginal surface (14b).

6. The grinding tool as claimed in one of claims 3 to 5, characterized in that the bearing surface (15) is formed by an annular surface coaxial to the grinding head (7).

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7. The grinding tool as claimed in one of claims 1 to 3, characterized in that the grinding head (7e) is arranged between a plurality of stop elements (34, 35) of the guide device (8e) which are provided for bearing  
10 against a workpiece surface (32).

8. The grinding tool as claimed in claim 7, characterized in that the stop elements (34, 35) have different heights and the rotation axis of the grinding  
15 head (7e) is at a desired angle to the workpiece surface (32) when the stop elements (34, 35) bear against the workpiece surface (32).

9. The grinding tool as claimed in one of claims 1 to 3, characterized in that the guide device (8b-8d) comprises stop elements (11, 12) acting on opposite sides  
20 of a workpiece (19b-19d).

10. The grinding tool as claimed in one of claims 1 to 9, characterized in that the guide device (8, 8a, 8d) is  
25 adjustable, in particular for setting the angles of bevels to be ground and for setting the position of the grinding point at the grinding head (7).

30 11. The grinding tool as claimed in claim 10, characterized in that the guide device (8d) is pivotable about an axis (25) for setting the bevel angle.

12. The grinding tool as claimed in claim 10 or 11,

characterized in that a drive device is provided for the adjustment, in particular for the oscillating adjustment, of the grinding point position.

- 5 13. The grinding tool as claimed in claim 12, characterized in that the drive device is in drive connection with the drive of the grinding head, preferably via epicyclic or worm gearing.
- 10 14. The grinding tool as claimed in claim 12, characterized in that the drive device comprises a separate drive motor or pneumatic cylinder.